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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,859	06/14/2006	Masahide Kondo	292456US0PCT	5965

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EXAMINER
MARTINEZ, BRITTANY M

ART UNIT	PAPER NUMBER
4116	

NOTIFICATION DATE	DELIVERY MODE
10/19/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/582,859	KONDO ET AL.	
	Examiner	Art Unit	
	Brittany M. Martinez	4116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *1* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/14/2006 AND 09/12/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Citation to the Specification will be in the following format (S. #,P) where # denotes the page number and P denotes the paragraph number. Citation to U. S. Patent literature will be in the format (Inventor, #, LL) where # is the column number and LL is the line number. Foreign patent literature will be in the format (Inventor, P) where P denotes the paragraph number.

Status of Application

Applicant's election **without traverse** of Group I (Claims 1-3) in the reply filed on September 21, 2007 is acknowledged.

Claims 4-5 are withdrawn from further consideration pursuant to CFR 1.12(b) as being drawn to a nonelected invention.

Priority

1. Applicant's claim for foreign priority in regard to JP 2003-421279, filed December 18, 2003, is acknowledged. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the foreign application must be submitted in reply to this action. 37 CFR 41.154(b) and 41.202(e).

Failure to provide a certified translation may result in no benefit being accorded for the non-English application.

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Title

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: *Method for Producing Catalyst for Production of Unsaturated Aldehyde and Unsaturated Carboxylic Acid.*

Specification

3. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The wording of much of the specification is unclear and utilizes poor grammar and spelling. In general, it appears as if the application was not proofread. *Applicants are strongly encouraged to review the entire application for these mistakes, as well as other spelling and grammar errors.* Appropriate correction is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Abstract

4. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;

(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Objections

5. **Claim 1** is objected to because of the following informalities: In Claim 1, there appears to be superfluous space between the words "of" and "from" in the last line of the claim. This extra space should be omitted. In general, it appears as if the application was not proofread. *Applicants are strongly encouraged to review the entire application for these mistakes, as well as other spelling and grammar errors.* Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the resultant kneaded mixture" in the 6th line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Lines 2-3 of Claim 2 read: "...adding the liquid to be added is **0.2 part by mass/min or less per 1 part by mass of the particles** containing the catalyst components." The bolded part of the claim is unclear and clarification is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (WO 02076611) in view of the instant specification.

With respect to Claim 1, Kondo teaches a method for producing a catalyst containing at least molybdenum, bismuth, and iron for use in producing an unsaturated aldehyde and an unsaturated carboxylic acid through gas-phase catalytic oxidation of propylene, isobutylene, tertiary butyl alcohol, or methyl tertiary butyl ether with molecular oxygen, comprising the steps of: kneading particles containing catalyst components, an organic binder, and a liquid; and extrusion molding the resultant kneaded mixture (Kondo, "Abstract" and Claims 5-7 and 17-18). Kondo does not explicitly teach the organic binder containing "...at least a high-viscosity organic binder having a viscosity (of its 1% water solution or dispersion at 20°C) of from 5,000 mPa·s to 25,000 mPa·s and a low-viscosity organic binder having a viscosity (of its 1% water solution or dispersion at 20°C) of from 10 mPa·s to less than 5,000 mPa·s" (Claim 1, lines 7-10). However, Applicant discloses:

> "...the organic binder is not particularly limited, a cellulose derivative such as methyl cellulose, ethyl cellulose, carboxymethyl cellulose, sodium carboxymethyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, hydroxyethylmethyl cellulose, hydroxybutylmethyl cellulose or ethylhydroxyethyl cellulose, or a water soluble or water dispersible synthetic polymer compound such as polyvinyl alcohol, or a β -1,3-glucan such as curdlan, laminaran, paramylon, callose, pachyman or scleroglucan can be exemplified.
>
> As the kind of the high-viscosity organic binder, methyl cellulose, hydroxypropylmethyl cellulose and hydroxyethylmethyl cellulose are especially preferable...

As the kind of the low-viscosity organic binder, methyl cellulose, hydroxypropylmethyl cellulose and hydroxyethylmethyl cellulose, curdlan and paramylon are especially preferable" (S. 10, 0031, and 11, 0031-0033).

Kondo teaches that "...it is more preferable that said kneaded material be obtained by adding a [beta]-1,3-glucan, a cellulose derivative and a liquid to the catalyst particles..." (Kondo, 0008). Further, "...it is preferable that said [beta]-1,3-glucan be curdlan" (Kondo, 0012) and the "...cellulose derivative used in combination with the [beta]-1,3-glucan comprise one or more members selected from the group consisting of methylcellulose, carboxymethylcellulose, hydroxypropyl methylcellulose and hydroxyethyl methylcellulose" (Kondo, 0012). Kondo discloses methylcellulose, ethylcellulose, carboxymethylcellulose, carboxymethylcellulose sodium, hydroxyethyl cellulose, hydroxypropyl cellulose, hydroxypropyl methylcellulose, hydroxyethyl methylcellulose, hydroxybutyl methylcellulose and ethylhydroxyethyl cellulose (Kondo, 0029) to be specific example of cellulose derivatives that may be used as molding aids, and curdlan, laminaran, paramylon, callose, pachyman and scleroglucan (Kondo, 0032) as specific examples of β -1,3-glucans that can be used. The viscosity of a 1% water solution or dispersion at 20°C of a particular organic binder is inherent, thus it would have been obvious in view of Kondo and/or the instant specification to a person of ordinary skill in the art to modify the process disclosed by Kondo with "...at least a high-viscosity organic binder having a viscosity (of its 1% water solution or dispersion at 20°C) of from 5,000 mPa·s to 25,000 mPa·s and a low-viscosity organic binder having a viscosity (of its 1% water solution or dispersion at 20°C) of from 10 mPa·s to less than

5,000 mPa·s" (Claim 1, lines 7-10) as taught by the instant in order to allow for a catalyst having high catalytic activity and high selectivity for an unsaturated aldehyde and an unsaturated carboxylic acid (Kondo, 0031), improved moldability of the kneaded catalyst material (Kondo, 0036), and the development of "more desirable pores" (Kondo, 0046) in the final extrusion-molded catalyst.

With regard to Claim 2, the aforementioned applied art does not specifically teach a liquid addition rate of "...0.2 part by mass/min or less per 1 part by mass of the particles coating the catalyst components" (Claim 2), and with regard to Claim 3, the aforementioned applied art does not specifically teach the temperature of the liquid to be added to be 20°C or less. However, in view of *In re Boesch*, these claimed limitations on liquid addition rate and temperature are considered to be result effective variables and therefore may obviously be predetermined and optimized at the time the invention was made by one having ordinary skill in the art.

Double Patenting

10. **Claim 1** is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5-7 and 17-18 of copending Application No. 10/473,255. Although the conflicting claims are not identical, they are not patentably distinct from each other because 10/473,255 teaches a method for producing a catalyst containing at least molybdenum, bismuth, and iron for use in producing an unsaturated aldehyde and an unsaturated carboxylic acid through gas-

phase catalytic oxidation of propylene, isobutylene, tertiary butyl alcohol, or methyl tertiary butyl ether with molecular oxygen, comprising the steps of: kneading particles containing catalyst components, an organic binder, and a liquid; and extrusion molding the resultant kneaded mixture, substantially as in Claim 1 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. **Claim 1** is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 14 of copending Application No. 10/504,143. Although the conflicting claims are not identical, they are not patentably distinct from each other because 10/504,143 teaches a method for producing a catalyst containing at least molybdenum, bismuth, and iron for use in producing an unsaturated aldehyde and an unsaturated carboxylic acid through gas-phase catalytic oxidation of propylene, isobutylene, tertiary butyl alcohol, or methyl tertiary butyl ether with molecular oxygen, comprising the steps of: kneading particles containing catalyst components and at least a liquid; and extrusion molding the resultant kneaded mixture, substantially as in Claim 1 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

1. No claim is allowed.

2. In general, prior art renders the claimed invention obvious.

3. Applicant is required to provide pinpoint citation to the specification (i.e. page and paragraph number) to support any amendments to the claims in all subsequent communication with the examiner. **No new matter will be allowed.** The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure:

Document	Publication Date	Inventor
US 4,558,028 A	12/10/1985	TSUNEKI ET AL.
US 5,082,819	01/21/1992	BOECK ET AL.
US 5,929,275	07/27/1999	WADA ET AL.
US 6,333,293 B1	12/25/2001	KASE ET AL.
US 6,509,508 B2	1/21/2003	KIMURA ET AL.
US 6,919,478 B2	07/19/2005	KAWATO ET AL.
JP 03-109345	05/09/1991	BOECK ET AL.
*JP 04-00448	01/08/1992	WATANABE ET AL.
JP 07-016463	01/20/1995	SHIOTANI ET AL.
*JP 07-016464	01/20/1995	SHIOTANI ET AL.
JP 09-052053	02/25/1997	TSUCHIMOTO ET AL.
*JP 10-028877	02/03/1998	WADA ET AL.
JP 2001-205090	07/31/2001	WATANABE ET AL.
JP 2001-399308	12/28/2001	KONDO ET AL.
*JP 2002-282695	10/02/2002	KONDO ET AL.
JP 2002-282696 A	10/02/2002	KONDO ET AL.

JP 2002-42215 02/19/2002 KONDO ET AL.

*These references were cited on Applicant's IDS.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brittany M. Martinez whose telephone number is (571) 270-3586. The examiner can normally be reached Monday-Thursday 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BMM

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